

SAFETY DATA SHEET

EC-ORP-QUIN263 (ORP Quinhydrone 263 mV Solution)

Last updated on 24th Feb 2014

1. PRODUCT IDENTIFICATION AND COMPANY INFORMATIONS

Product part number:	01X062700
Company Informations:	EUTECH INSTRUMENTS PTE LTD. THERMO FISHER SCIENTIFIC Blk 55, Ayer Rajah Crescent, #04-16/24, Singapore 139949, Website: http://www.eutechinst.com E-mail: eutech@thermofisher.com
Telephone No:	(65) 6778 6876
Fax No:	(65) 6773 0836
Product Use:	Laboratory chemicals for ORP measurements

2. HAZARD IDENTIFICATION

Classification of the substance or mixture:	The product is not classified dangerous according to European Union Legislation.
Label elements:	Not a dangerous substance according to GHS
Labeling (67/548/EEC or 1999/45/EC)	The product does not need to be labeled in accordance with EC directives or respective national laws.
Hazard information	Low hazard for normal use. Maybe harmful if swallowed. May cause irritation to eyes and skin.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization: Mixtures		
CAS: 106-34-3, EC-No: 203-387-6 Formula : C ₆ H ₆ O ₂ · C ₆ H ₄ O ₂	Quinhydrone Acute toxicity, Oral(Cat:3), Skin irritation (Cat:2); Eye irritation(Cat:2)	1%
CAS: 877-24-7, EC-No: 212-889-4 Formula: C ₄ H ₃ KO ₈ ·2H ₂ O	Potassium Hydrogen phthalate	< 1.05 %
CAS: 7732-18-5	Deionized water	>97 %
CAS: 121-54-0, EC No: 204-479-9	Benzethonium Chloride, Acute toxicity, Oral(Cat:3), Skin corrosion (Cat:1) Eye damage (Cat:1); Acute aquatic toxicity (Cat:1); Chronic aquatic toxicity (Cat:1); H301;H314;H410	<0.002 %

4. FIRST AID MEASURES

Description of first aid measures:	
After inhalation:	If breathed in, move person into fresh air. Consult a

	physician.
After skin contact:	Wash off with soap and plenty of water. Consult a physician
After eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
After swallowing:	Wash out mouth thoroughly with water and give plenty of water to drink. In severe cases obtain medical attention.

5. FIRE FIGHTING MEASURES

Extinguishing media:	
Suitable extinguishing agents:	Water spray, Carbon Dioxide, Dry Chemical Powder, Appropriate Foam.
Special hazards arising from the substance or mixture	No data available
Advice for firefighters	
Protective equipment:	Wear self contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
Methods and material for containment and cleaning up:	Take up with absorbent materials. Place in small containers for disposal. Wash spill site after material pick up is complete.

7. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Provide appropriate exhaust ventilation.
Conditions for safe storage, including any incompatibilities	Store at room temperature. Keep container tightly closed in a dry and well-ventilated place. Air and light sensitive.

8. EXPOSURE CONTROLS/PERSIONAL PROTECTION

Control parameters:	
Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal Protective Equipment:	
Eye/face protection:	Safety glasses with side-shields.
Skin protection:	Handle with chemical resistant gloves. Wash and dry hands.
Body Protection:	Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.
Respiratory protection	Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid, Color- Dark green or black
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Odor:	Irritating odor
Odor threshold:	No data available
pH-value:	~4
Melting point/melting range:	No data available
Boiling point/Boiling range:	No data available
Flash point:	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Lower Explosion limits:	No data available
Upper Explosion limits:	No data available
Vapour pressure	No data available
Vapour density	1.01 gm/cm ³
Relative density:	No data available
Water solubility	No data available
Partition coefficient: noctanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Other information	No further relevant information available

10. STABILITY AND REACTIVITY

Reactivity	No data available
Chemical stability	Once exposed to air for longer duration, stability is affected.
Possibility of hazardous reactions	No data available
Conditions to avoid	Air, Light
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	No data available

11. TOXICOLOGICAL INFORMATION

Product Toxicity:	Quantitative data on the toxicity of this product is not available.
Signs and Symptoms of Exposure	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated
Component Toxicity: Applicable to partial component. Applies to quinhydrone, as the pure substance.	Acute toxicity LD 50 (oral, rat): 225 mg/kg.

12. ECOLOGICAL INFORMATION

Toxicity:	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Results of PBT and vPvB assessment	No data available
Other adverse effects	No further relevant information available.

13. DISPOSAL CONSIDERATION

Waste treatment methods Product:	Chemical residues are generally classified as special waste and thus covered by local regulations. Contact local authorities or disposal companies for advice.
Contaminated packaging:	Dispose of as unused product

14. TRANSPORT INFORMATION

UN-Number ADR/RID, IMDG, IATA	Not regulated
UN proper shipping name - ADR, ADN, IMDG, IATA	Not subject to transport regulations
Transport hazard class(es) ADR/RID, IMDG, IATA	Not subject to transport regulations
Packing group ADR, IMDG, IATA	Not regulated
Environmental hazards- Marine pollutant:	No
Special precautions for user	No data available

15. REGULATORY INFORMATION

Complies with European Regulations (EC) No. 1907/2006 and No. 1272/2008. Complies with European Council Directives 67/548/EEC and 1999/45/EC.	
Chemical safety assessment:	A chemical safety assessment has not been carried out.

16. OTHER INFORMATION

<p>The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Company will not be held liable for any damage resulting from handling or from contact with the above product.</p> <p>Abbreviations and acronyms: ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID: Regulations Concerning the International Transport of Dangerous Goods by Rail IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and Labeling of Chemicals</p>
